

Issue Date	Org. Date

NATIONAL OCEANIC and
ATMOSPHERIC
ADMINISTRATION
Environmental Manual

NOAA		Section
		11

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11 ASBESTOS MANAGEMENT

Synopsis

The purpose of this section is to provide guidelines for employees and supervisors who work in or around asbestos-containing material or are responsible for removal and disposal of this material. The section applies to all NOAA facilities, work sites and ships and the NOAA employees who work in and around these operations.

Initial Implementation Requirements:

- **Review the NOAA Occupational Safety and Health Manual, Section 31 - Asbestos Safety**
- **Analyze Site Operations versus Requirements of the Procedure**
 - Identify all sites where an asbestos hazard may be present (NOAA Occupational Safety and Health Manual, para.31.3.3)
 - Perform Visual Inspection and Instrumental Testing of “suspect” ACMs. (NOAA Occupational Safety and Health Manual, para 31.3.3)
- **Designate Person to Administer the Asbestos Safety Procedure Requirements** (if required)
- **Develop/Obtain Documentation/Information Required for Site**
 - Develop an Asbestos Control Program (NOAA Occupational Safety and Health Manual para.31.3.3) (if applicable)
- **Provide Local Training of Site Personnel** (if required)
- **Develop an Asbestos Removal Plan** (if applicable)
- **Contract with an EPA-approved Asbestos Removal Contractor if ACM is present**
- **Manage the removed material as per the State and Federal requirements** (if applicable)

Recurring and Annual Task Requirements:

Until the ACM is removed:

- **Perform Inspection/Assessment/Testing**
 - Perform Visual Inspection and Instrumental Testing of “suspect” ACMs. (NOAA OSHA Manual para 31.3.3) as necessary
- **Review/Update Documentation/Information required for Site**
 - Maintain Asbestos Control Program. (NOAA Occupational Safety and Health Manual para 31.3.3) (if applicable)
- **Provide Refresher Training of Site Personnel** (if required)

Checklist

11 Asbestos	YES	NO	N/A
1. Does the facility, work site or ship have or is it suspected to have asbestos or asbestos-containing material? (11.5.1)	<input type="checkbox"/>	_____	<input type="checkbox"/>
a. If yes, has testing been performed? (11.5.1)	_____	_____	_____
2. For land based facilities, if asbestos was found, has an Asbestos Control Program been established? (11.5.2)	_____	<input type="checkbox"/>	_____
a. Has an Asbestos Control Program Coordinator been appointed? (11.5.2a)	_____	_____	_____
b. Have all affected employees been notified in writing of the presence of asbestos? (11.5.2b)	_____	_____	_____
c. Have “regulated areas” been established? (11.5.2d)	_____	_____	_____
d. Are all NOAA personnel prohibited from entering the prohibited areas? (11.5.2e)	_____	_____	_____
e. Are there plans to remove the asbestos? (11.6)	<input type="checkbox"/>	_____	_____
f. Has a plan been filed with the EPA Regional Office? (11.6.1)	_____	_____	_____
g. Has a formal file to record all activities been created? (11.6.2)	_____	_____	_____
h. Are all records pertaining to asbestos removal retained on-site for at least 2 years? (11.6.2)	_____	_____	_____
i. Has or will the removed asbestos material be disposed at an approved facility? (11.6.3)	_____	_____	_____

	YES	NO	N/A
3. For Ships,			
a. Are all asbestos materials that are damaged or deteriorated asbestos materials such that airborne particles are possible removed, repaired, encapsulated or replaced? (11.5.3 a)	_____	_____	_____
b. When asbestos material is removed, is it replaced with acceptable non-asbestos material? (11.5.3 b)	_____	_____	_____
c. Is all removal or repair of asbestos material done by a qualified contractor except in an emergency? (11.5.3 c)	_____	_____	_____
d. Is all emergency asbestos work done in accord with Supplement #10 of the NOAA Fleet Hazardous Materials and Hazardous Waste Manual?	_____	_____	_____
e. Does the ship have appropriate equipment on board for asbestos removal? (11.5.3 e)	_____	_____	_____
f. Have all removed asbestos wastes been disposed appropriately? (11.5.3 f)	_____	_____	_____
g. Has the annual report been submitted to the ECO at the MCO? (11.5.3 g)	_____	_____	_____
h. Have ship personnel been trained? (11.5.3 h)	_____	_____	_____

11 ASBESTOS MANAGEMENT

11.1 Purpose and Scope

While NOAA has attempted to remove asbestos from the workplace, because of the pervasive use of this material, it is possible that asbestos-containing material may still be found at some NOAA facilities, work sites and on some ships. To ensure NOAA personnel are protected from this material during its use, removal and disposal, this section has been created.

The section applies to all NOAA operations where asbestos or asbestos-containing material are known or assumed to be present.

11.2 Definitions

Designated Person - a NOAA employee assigned the task of coordinating the asbestos management effort. This role need not be assigned to the Facility Environmental Coordinator. It may be assigned to another NOAA employee.

Designated Responsible Official (DRO) - the senior NOAA official on-site. This official has authority over operations or activities which are subject to environmental and worker safety statutes. The responsibility of the DROs is inherent in their position and need not be formally designated or ascribed.

Facility Environmental Coordinator (FEC) -the individual responsible for ensuring the activities carried out at a facility are conducted in accordance with Federal, state and local environmental regulations. Typically, each NOAA facility will have a designated FEC who is also responsible for compliance with occupational safety and health requirements. In the NWS, this individual is identified as the Environmental and/or Safety Focal Point

Friable Asbestos - is any material that contains more than 1 percent asbestos that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure. Examples of friable asbestos include spray-on insulation and pipe insulation.

Non-Friable Asbestos - is a material containing more than 1 percent asbestos that cannot be crumbled, pulverized or reduced to powder by hand pressure. Vinyl asbestos floor tile or uncracked transite are examples of non-friable asbestos.

Regulated Asbestos-Containing Material (RACM) - means (a) Friable asbestos material, (b) Category I non-friable ACM that has become friable, (c) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (d) Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

11.3 Acronyms Employed in This Section

ACM	-	Asbestos-Containing Material
CIH	-	Certified Industrial Hygienist
DRO	-	Designated Responsible Official
EPA	-	Environmental Protection Agency
ECO	-	Environmental Compliance Officer
FEC	-	Facility Environmental Coordinator
MOC	-	Marine Operations Center
NOAA	-	National Oceanic & Atmospheric Administration
NWS	-	National Weather Service
OSHA	-	Occupational Safety and Health Agency
PEL	-	Permissible Exposure Limit
RACM	-	Regulated Asbestos-Containing Material
RECO	-	Regional Environmental Compliance Officer
RSM	-	Regional Safety Manager
TWA	-	Time Weighted Average
WSR	-	Waste Shipment Record

11.4 Regulatory Requirements

11.4.1 Federal Laws and Regulations

a. Occupational Safety & Health Administration (OSHA)

The Occupational Safety & Health Administration (OSHA) regulates asbestos in all industries other than construction, ship repair and shipbuilding, in 29 CFR 1910.1001.

b. Environmental Protection Agency (EPA)

The Environmental Protection Agency (EPA) regulates asbestos emissions, removal and disposal under 40 CFR Part 61 - The National Emissions Standards for Hazardous Air Pollutants, Subparts A (40 CFR Parts 61.01 to 61.19) and M (40 CFR 140-157 and Appendix A to M).

c. National Oceanic and Atmospheric Administration (NOAA)

The National Oceanic and Atmospheric Administration (NOAA) asbestos control program is detailed in NOAA Occupational Safety and Health Manual, Section 31 - Asbestos Safety.

11.5 Asbestos Control Program

11.5.1 Identification of Asbestos-Containing Material (ACM)

The EPA and OSHA define two types of asbestos - friable and non-friable.

Friable asbestos material is any material that contains more than 1 percent asbestos that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure. Examples of friable asbestos include spray-on insulation and pipe insulation.

Non-friable asbestos is a material containing more than 1 percent asbestos that cannot be crumbled, pulverized or reduced to powder by hand pressure. Vinyl asbestos floor tile or uncracked transite are examples of non-friable asbestos.

The EPA further divides non-friable asbestos into two categories - I and II.

Category I non-friable asbestos-containing material includes asbestos-containing packings, gaskets, resilient floor covering and asphalt roofing products containing more than 1% asbestos.

Category II non-friable asbestos-containing material is any material other than Category I ACM that contains more than 1% asbestos that when dry, cannot be crumbled, pulverized or reduced to powder by hand pressure.

While the continued use and removal of both friable and non-friable asbestos are regulated, because of the obvious threat to the air, both the EPA and OSHA require more control of friable asbestos-containing materials to ensure the asbestos remains contained.

The NOAA Occupational Safety and Health Manual - Section 31 - Asbestos Safety requires in 31.3.3 that “NOAA facilities where asbestos or ACM are potentially present (e.g. buildings, structures and ships built before 1981), shall arrange visual inspections and testing of “suspect” materials by an accredited inspector or Certified Industrial Hygienist (CIH) who has completed an EPA-approved asbestos training course. This effort will be coordinated with NOAA Regional Environmental Compliance Officer (RECOs), NOAA Regional Safety Manager (RSMs) and the Regional Environmental/Safety Coordinator (if applicable).

11.5.2 Establish an Asbestos Control Program for Land Based Facilities

Paragraph 31-3.3 of the NOAA Occupational Safety and Health Manual requires that, “When presence of asbestos or ACM is confirmed, an Asbestos Control Program shall be established and maintained with RECOs and/or RSMs.”

This program includes:

- a. Designation of an Asbestos Control Program Coordinator by the Designated Responsible Official to coordinate the facility efforts.
- b. The notification of all affected employees of any asbestos monitoring within 15-days of receipt by the NOAA facility, workstation, or ship. This notification must be in writing and it can be made individually or by posting of the results in a location accessible to all employees.
- c. The notification of all affected employees of the procedures taken to minimize exposure.
- d. If airborne concentrations of asbestos or presumed asbestos material are in excess of the OSHA Permissible Exposure Limit (PEL) on a Time Weighted Average (TWA), a “regulated area” must be established, clearly demarcated and access limited.
- e. Persons entering the regulated area must use an appropriate respirator and be trained and certified in its use.
- f. All employees are prohibited from eating, drinking, smoking, chewing tobacco or gum or applying cosmetics in the regulated area.

11.5.3 Asbestos Control Program for Ships

Asbestos aboard ships is regulated by the NC Instruction 5100.1B “Safety Standards for the Ships of the NOAA Fleet.” These standards detail the procedures to be used for the repair, removal, replacement and disposal of asbestos onboard NOAA Vessels as well as the personnel training and recordkeeping requirements that must be met. These standards include:

- a. If asbestos material appears to be damaged or deteriorated to the point where emission of airborne particles is possible, it shall be removed, repaired, encapsulated or replaced with acceptable non-asbestos material.
- b. If asbestos-containing material is removed for renovations, repairs or maintenance work, it will be replaced with acceptable non-asbestos material.
- c. Removal or repair of asbestos onboard a ship shall be done by a qualified contractor. NOAA personnel are not allowed to perform this work except in an emergency or casualty situation.

- d. All emergency asbestos removal and repair work must be done in accordance with Supplement #10 of the NOAA Fleet Hazardous Materials and Hazardous Waste Manual.
- e. All NOAA vessels must have appropriate equipment onboard for asbestos removal.
- f. Once removed, the asbestos waste must be managed in accordance with Federal, State and local requirements.
- g. All NOAA vessels are required to submit an annual report to the Environmental Compliance Officer (ECO) at the Marine Operations Center (MOC) on asbestos activities by October 1st.
- h. NOAA Class I and II vessels must ensure that one officer, two personnel from the engine room and the medical technicians receive training in personnel protection, removal and repair procedures, and air sampling techniques at least annually. Personnel on other vessels should receive similar training.
- i. All asbestos-containing material removed during an emergency repair must be disposed in accordance with the Federal, State and local requirements and Supplement #10 of the NOAA Fleet Hazardous Materials and Hazardous Waste Manual.

Additional guidance can be found in MOC Env 3, “Control of Asbestos Health Hazards.”

11.6 Asbestos Removal Plan

In consultation with the NOAA Regional Environmental Compliance Officer (RECO) and/or the NOAA Regional Safety Manager, the decision will be made whether to:

- a. allow the asbestos or ACM to remain in its current state,
- b. encapsulate it, or
- c. remove it.

If removal is decided, an asbestos removal plan must be prepared which includes:

- a. Notification of the EPA Regional Office and the receipt of a written approval prior to initiation of the removal.
- b. Establishing and maintaining a formal file to record all activities.

- c. A description of the procedures to be employed to remove the asbestos or ACM while preventing contamination to the rest of the facility.
- d. Disposal at an approved facility.

11.6.1 Notification

Depending on the amount, type and location of the asbestos or asbestos-containing material, the Regional Office of the Environmental Protection Agency (EPA) may require a notification prior to initiating the removal of the material. The requirements for when this notification is required are detailed in 40 CFR 61.145. Contact the NOAA Regional Environmental Compliance Officer (RECO) and/or Regional Safety Manager (RSM) for assistance in both determining if the notification is required and preparing the notice.

The notification must be received by the EPA at least 10 working days before the start of the asbestos removal and must include a description of the analytical procedures used to identify the material, the removal techniques to be used, the location of the material, the starting and completion dates, the name and location of the disposal site and a certification that the operation will be supervised by an EPA-certified Asbestos Supervisor.

Upon review by the EPA, the Regional Administrator will provide a written approval for the asbestos abatement project. This approval must be kept at the work site during the operation.

To assist in understanding and complying with the notification requirements, the EPA has created a website to explain what is required and when. The web address is: www.epa.gov/region04/air/asbestos/asbqa.htm.

<p>Note: The States can impose more stringent requirements for managing, reporting and notifying of a removal project. Contact the Regional Environmental Coordinator, the Safety/Environmental Coordinator (SECO), NOAA Regional Environmental Coordinator (RECO) or Regional Safety Manager (RSM) for more specific information.</p>

11.6.2 Recordkeeping

A copy of the EPA notification, the EPA Regional Administrator's approval, the shipping paper [waste shipment record (WSR)] and the disposal site confirmation will be provided to the NOAA Regional Environmental/Safety Coordinator and the NOAA Regional Environmental Compliance Officer (RECO). The EPA requires the records to be kept on-site for at least two (2) years, however, it is highly recommended that these records be kept permanently.

11.6.3 Disposal

Prior to disposal, all asbestos and asbestos-containing materials must be wetted to minimize the release of air particles and then placed in a leak tight wrapping which is then placed into another leak tight wrapping (this is also known as double-bagging).

In general, wetted, double-bagged asbestos can be disposed in a State-approved solid waste facility. Prior contact with both the disposal facility and the State by the NOAA RECO will assure all local ordinances are known and followed.

11.7 Responsibilities

11.7.1 NOAA Headquarters

- a. The NOAA Environmental/Safety Office shall perform an annual assessment of the NOAA headquarters facilities to ensure that the facilities are in compliance with this section.
- b. The NOAA Environmental/Safety Office shall periodically perform an assessment of the regional headquarters and field offices to ensure compliance with this section. The frequency of these regional and field office assessments shall be determined by the NOAA Environmental/Safety Office.
- c. Requests for clarification concerning this section shall be directed to the NOAA Environmental/Safety Office.

11.7.2 Regional or Operating Unit Environmental/Safety Coordinator

- a. Shall monitor and coordinate to ensure compliance with the requirements of this section by the regional headquarters, field offices or operating units.
- b. Shall perform an annual assessment of the regional headquarters facilities or operating unit to monitor and promote compliance with the requirements of this section.
- c. Shall perform assessments or designate personnel to perform assessments of all field offices to monitor and promote compliance with the requirements of the section.

11.7.3 Designated Responsible Official

- a. Shall have oversight over the implementation of this section and ensure that the requirements of this section are followed by individuals at the NOAA facility.
- b. Shall ensure sufficient personnel and funding are available to enable compliance with all applicable requirements of this section.
- c. Shall ensure that an asbestos control program is developed at NOAA field offices containing asbestos materials.
- d. Shall ensure NOAA employees follow the requirements of this section.
- e. Shall review or delegate review of this section on an annual basis to ensure that the facility is complying with its requirements. Confirmation of this review shall be forwarded to the Regional or Operating Unit Environmental/Safety Coordinator.

11.7.3 Facility Environmental Coordinator or Environmental and/or Safety Focal Point or Asbestos Control Program Coordinator

- a. Shall ensure any tasks delegated to them by the Designated Responsible Official are implemented in accordance with the requirements of this section.

11.7.4 Employees

- a. Individual employees affected by this section are required to read, understand and comply with the requirements of this section.
- b. Report all violations of the requirements of this section to their supervisor or Environmental Focal Point.

11.8 References

Incorporated References

The following list of references is incorporated as a whole or in part into this section. These references can provide additional explanation or guidance for the implementation of this section.

- 11.8.1 Department of Labor Occupational Safety and Health Administration, 20 CFR 1910.1001, "Asbestos"

11.8.2 U.S. Environmental Protection Agency

40 CFR 61, National Emission Standards for Hazardous Air Pollutants, Subpart M, “Asbestos”

40 CFR 61.145, Standard for Demolition and Renovation

11.8.3 NOAA Occupational Health and Safety Manual, Section 31

-----11.8.4__NC 5100.1B Safety Standards for the Ships of the NOAA Fleet

-----11.8.5 Marine Operations Center Env 3, Control of Asbestos Health Hazards